109TH CONGRESS
2D SESSION

S. 3527

To require the Under Secretary of Technology of the Department of Commerce to establish an Advanced Multidisciplinary Computing Software Institute.

IN THE SENATE OF THE UNITED STATES

JUNE 15, 2006

Mr. DeWine (for himself and Mr. Kohl) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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A BILL

To require the Under Secretary of Technology of the Department of Commerce to establish an Advanced Multidisciplinary Computing Software Institute.

1   *Be it enacted by the Senate and House of Representa-*

2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4   This Act may be cited as the "Blue Collar Computing

5 and Business Assistance Act of 2006".

6 **SEC. 2. FINDINGS AND PURPOSE.**

7   (a) FINDINGS.—Congress makes the following find-

8 ings:

1   (1) Computational science, the use of advanced

2 computing capabilities to understand and solve com-

3 plex problems, including the development of new

4 products and processes, is now critical to scientific

5 leadership, economic competitiveness, and national

6 security.

7   (2) Advances in computational science and high

8 performance computing provide a competitive advan-

9 tage because they allow businesses to run faster sim-

10 ulations of complex systems or to develop more pre-

11 cise computer models.

12   (3) The Federal Government is one of the in-

13 vestors in research aimed at the development of new

14 computational science and high-performance com-

15 puting capabilities.

16   (4) As determined by the Council on Competi-

17 tiveness, the Nation's small businesses and manufac-

18 turers must "Out Compute to Out Compete". How-

19 ever, new computational science technologies are not

20 being transferred effectively from the research orga-

21 nizations to small businesses and manufacturers.

22   (5) Small businesses and manufacturers are es-

23 pecially well-positioned to benefit from increased

24 availability and utilization of high-performance com-

25 puting technologies and software.

1   (6) Current cost and technology barriers associ-
2 ated with high-performance computing and software
3 algorithms often inhibit small businesses and manu-
4 facturers from successfully making use of these tech-
5 nologies.

6   (7) The establishment of an advanced multi-
7 disciplinary computing software institute will help
8 make existing high performance computing resources
9 more accessible to small businesses and manufactur-
10 ers. This will create new opportunities for economic
11 growth, jobs, and product development.

12   (b) PURPOSE.—The purpose of this Act is to provide
13 grants for the creation of an Advanced Multidisciplinary
14 Computing Software Institute that will—

15   (1) develop and compile high-performance com-
16 puting software and algorithms suitable for applica-
17 tions in small business and manufacturing;

18   (2) effectively carry out the transfer of new
19 computational science and high-performance com-
20 puting technologies to small businesses and manu-
21 facturers; and

22   (3) actively assist small businesses and manu-
23 facturers in utilizing such technologies.

24 **SEC. 3. DEFINITIONS.**

25   In this Act:

1   (1) ADVANCED MULTIDISCIPLINARY COMPUTING

2   SOFTWARE CENTER; CENTER.—The term "Advanced

3   Multidisciplinary Computing Software Center" or

4   "Center" is a center created by an eligible entity

5   with a grant awarded under section 4.

6   (2) ADVANCED MULTIDISCIPLINARY COMPUTING

7   SOFTWARE INSTITUTE.—The term "Advanced Multi-

8   disciplinary Computing Software Institute" means a

9   network of up to 5 Advanced Multidisciplinary Com-

10   puting Software Centers located throughout the

11   United States.

12   (3) NONPROFIT ORGANIZATION.—The term

13   "nonprofit organization" means any organization if

14   such organization is described in section 501(c)(3)

15   of the Internal Revenue Code of 1986 and is exempt

16   from tax under section 501(a) of such Code.

17   (4) SMALL BUSINESS OR MANUFACTURER.—

18   The term "small business or manufacturer" means

19   a small business concern as that term is defined by

20   section 3(a) of the Small Business Act (15 U.S.C.

21   632(a)), including a small manufacturing concern.

22   (5) UNDER SECRETARY.—The term "Under

23   Secretary" means the Under Secretary of Tech-

24   nology of the Department of Commerce.

SEC. 4. GRANTS.

(a) IN GENERAL.—The Under Secretary of Technology of the Department of Commerce shall award grants to establish up to 5 Advanced Multidisciplinary Computing Software Centers at eligible entities throughout the United States. Each Center shall—

(1) conduct general outreach to small businesses and manufacturers in all industry sectors within a geographic region assigned by the Under Secretary; and

(2) conduct technology transfer, development, and utilization programs relating to a specific industry sector, for all firms in that sector nationwide, as assigned by the Under Secretary.

(b) ELIGIBLE ENTITIES.—For the purposes of this section, an eligible entity is any—

(1) nonprofit organization;

(2) consortia of nonprofit organizations; or

(3) partnership between a for-profit and a nonprofit organization.

(c) APPLICATION.—

(1) IN GENERAL.—Each eligible entity that desires to receive a grant under this Act shall submit an application to the Under Secretary, at such time, in such manner, and accompanied by such additional

1 information as the Under Secretary may reasonably

2 require.

3   (2) PUBLICATION IN FEDERAL REGISTER.—The

4 Under Secretary shall publish the requirements de-

5 scribed in paragraph (1) in the Federal Register no

6 later than 6 months after the date of the enactment

7 of this Act.

8   (3) CONTENTS.—Each application submitted

9 pursuant to paragraph (1) shall include the fol-

10 lowing:

11   (A) An application that conforms to the re-

12   quirements set by the Under Secretary under

13   paragraph (1).

14   (B) A proposal for the allocation of the

15   legal rights associated with any invention that

16   may result from the activities of the proposed

17   Center.

18   (4) SELECTION CRITERIA.—Each application

19 submitted under paragraph (1) shall be evaluated by

20 the Under Secretary on the basis of merit review. In

21 carrying out this merit review process, the Under

22 Secretary shall consider—

23   (A) the extent to which the eligible enti-

24   ty—

1   (i) has a partnership with nonprofit

2   organizations, businesses, software ven-

3   dors, and academia recognized for relevant

4   expertise in their selected industry sector;

5   (ii) makes use of State-funded aca-

6   demic supercomputing centers and univer-

7   sities or colleges with expertise in the com-

8   putational needs of the industry assigned

9   to the eligible entity under subsection

10   (a)(1);

11   (iii) has a history of working with

12   businesses;

13   (iv) has experience providing edu-

14   cational programs aimed at helping organi-

15   zations adopt the use of high-performance

16   computing and computational science;

17   (v) has partnerships with education or

18   training organizations that can help edu-

19   cate future workers on the application of

20   computational science to industry needs;

21   (vi) is accessible to businesses, aca-

22   demia, incubators, or other economic devel-

23   opment organizations via high-speed net-

24   works; and

1   (vii) is capable of partnering with

2   small businesses and manufacturers for the

3   purpose of enhancing the ability of such

4   entities to compete in the global market-

5   place;

6   (B) the ability of the eligible entity to

7   enter successfully into collaborative agreements

8   with small businesses and manufacturers in

9   order to experiment with new high performance

10   computing and computational science tech-

11   nologies; and

12   (C) such other factors as identified by the

13   Under Secretary.

14   (d) AMOUNT.—A grant awarded under this section

15 shall not exceed $5,000,000 for any year of the grant pe-

16 riod.

17   (e) DURATION.—

18   (1) IN GENERAL.—Except for a renewal under

19   paragraph (2), the duration of any grant awarded

20   under subsection (a) may not exceed 5 years.

21   (2) RENEWAL.—Any grant awarded under sub-

22   section (a) may be renewed at the discretion of the

23   Under Secretary.

24   (f) MATCHING REQUIREMENT.—

1   (1) IN GENERAL.—An eligible entity that re-

2   ceives a grant under subsection (a) shall provide at

3   least 50 percent of the capital and annual operating

4   and maintenance funds required to create and main-

5   tain a Center.

6   (2) FUNDING FROM OTHER FEDERAL, STATE,

7   OR LOCAL GOVERNMENT AGENCIES.—The funds pro-

8   vided by the eligible entity under paragraph (1) may

9   consist of amounts received by the eligible entity

10   from a Federal department or agency, other than

11   the Department of Commerce, or a State or local

12   government agency.

13   (g) LIMITATION ON ADMINISTRATIVE EXPENSES.—

14 The Under Secretary may establish a reasonable limita-

15 tion on the portion of each grant awarded under sub-

16 section (a) that may be used for administrative expenses

17 or other overhead costs.

18   (h) FEES AND ALTERNATIVE FUNDING SOURCES

19 AUTHORIZED.—

20   (1) IN GENERAL.—A Center established pursu-

21   ant to this Act may, according to regulations estab-

22   lished by the Under Secretary—

23   (A) collect a nominal fee from a small

24   business or manufacturer for a service provided

1   pursuant to this Act, if such fee is utilized for

2   the budget and operation of the Center; and

3   (B) accept funds from any other Federal

4   department or agency for the purpose of cov-

5   ering capital costs or operating budget ex-

6   penses.

7   (2) CONDITION.—Any Center that is supported

8   with funds that originally came from a Federal de-

9   partment or agency, other than the Department of

10   Commerce, may be selected, and if selected shall be

11   operated, according to the provisions of this section.

12 **SEC. 5. USE OF FUNDS.**

13   An eligible entity that receives a grant under section

14 4(a) shall use the funds for the benefit of businesses in

15 the industry sector designated by the Under Secretary

16 under such subsection, and the eligible entity shall use

17 such funds to—

18   (1) create a repository of nonclassified, non-

19   proprietary new and existing federally-funded soft-

20   ware and algorithms;

21   (2) test and validate software in the repository;

22   (3) determine when and how the industry sector

23   it serves could benefit from resources in the reposi-

24   tory;

1 　　　(4) work with software vendors to commer-

2 　　cialize repository software and algorithms from the

3 　　repository;

4 　　　(5) make software available to small businesses

5 　　and manufacturers where it has not been commer-

6 　　cialized by a software vendor;

7 　　　(6) help software vendors, small businesses, and

8 　　manufacturers test or utilize the software on high-

9 　　performance computing systems; and

10 　　　(7) maintain a research and outreach team that

11 　　will work with small businesses and manufacturers

12 　　to aid in the identification of software or computa-

13 　　tional science techniques which can be used to solve

14 　　challenging problems, or meet contemporary busi-

15 　　ness needs of such organizations.

16 **SEC. 6. REPORTS AND EVALUATIONS.**

17 　(a) REPORT.—Each eligible entity who receives a

18 grant under section 4(a) shall submit to the Under Sec-

19 retary on an annual basis, a report describing the goals

20 of the Center established by the eligible entity and the

21 progress the eligible entity has achieved towards meeting

22 the purposes of this Act.

23 　(b) EVALUATION.—The Under Secretary shall estab-

24 lish a peer review committee, consisting of representatives

1 from industry and academia, to review the goals and
2 progress made by each Center during the grant period.

SEC. 7. AUTHORIZATION OF APPROPRIATIONS.

4 (a) IN GENERAL.—There are authorized to be appro-
5 priated $25,000,000 for each of the fiscal years 2007,
6 2008, 2009, 2010, and 2011 to carry out the provisions
7 of this Act.

8 (b) AVAILABILITY.—Funds provided for the estab-
9 lishment and operation of Centers under this Act shall re-
10 main available until expended.

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